

description of the structure not depending for completeness upon the introductory clause. Applicants' respectfully submit that independent claims 1 and 4 each recite that the high-pressure adapter includes a sealing ring for a sound proof connection to said sound pressure level sensor. Therefore the portion of the claim following the preamble is not self-contained in that it depends for completeness upon the introductory clause "i.e. said sound pressure level sensor". Therefore it is submitted that the calibration of a sound pressure level sensor must be given patentable weight.

The reference to Zuckewar is not a sound pressure level calibrator for calibrating for a sound pressure level sensor but instead is a device which measures the acoustic impedance of the surface 12 which is exemplified as the ground surface on the earth.

The sound pressure level calibrator of the present invention provides a structure which produces a very high sound pressure level so that sound waves in excess of 124 dB can be measured. Additionally, the device can be adapted to install sound pressure sensors as indicated on pages 1 and 2 of the specification.

The Zuckewar patent is a device for measuring the acoustic impedance of the surface. However, the ground surface being measured is not a sound pressure level sensor.

With respect to the particulars of Zuckewar, the apparatus includes a tube formed as a $\lambda/4$ resonator with a length adapted to the excitation frequency of the pistonphone. The apparatus has a piston in a neck, which forms the pistonphone volume. There is no indication concerning the shape or length of the neck and there is no indication of how it is connected to a pistonphone volume. Furthermore there is no indication that it is adapted to the excitation frequency of the pistonphone, the amplification function or the special form so that there is no implication that it is a $\lambda/4$ resonator. The neck 13 of Zuckewar is not able to amplify the sound pressure produced in the pistonphone volume.

Additionally, in the "Response To Arguments" section, the Examiner maintains that the neck 13 has an acoustic wave resonator because it is shown in Figure 1 of Zuckewar as a tube with a constant diameter opened at the bottom where it attaches to chamber 11 and closed at the top by piston 14. The Examiner's position is that the acoustic wave resonator is simply a tube with a constant diameter closed at one end and opened at another.

Applicants submit that the quarter wave resonator is related to the wavelength of the sound and it is expressed in the claimed invention that the resonator amplifies the produced sound pressure. Therefore, in contrast to the Examiner's assertion, what is obvious for those skilled in the art is that the quarter wave resonator is specifically designed to amplify the sound pressure. In order to provide such a design, the details depend on the various parameters described in

detail in the specification. The rejection disregards the claim limitation that the high-pressure adapter includes a quarter wave resonator to amplify the produced sound pressure. Also the present invention is a sound pressure level calibrator for calibrating a sound pressure level sensor which, as indicated above, is not available from the reference to Zuckewar. Because of the portion of the independent claims which depend on the preamble for completion, such limitation must be considered. Likewise there is no indication in Zuckewar of the adapter opening having a sealing ring for a sound proof connection to the sound pressure level sensor to be calibrated.

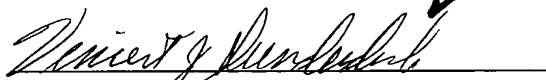
For these reasons Applicants respectfully request reconsideration and allowance of this application containing claims 1-5 including independent claims 1 and 4.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #056226.50943US).

Respectfully submitted,

September 2, 2003


Vincent J. Sunderdick
Registration No. 29,004

CROWELL & MORING, LLP
P.O. Box 14300
Washington, DC 20044-4300
Telephone No.: (202) 624-2500
Facsimile No.: (202) 628-8844

VJS:adb